

DESCRIPTIONS OF THREE NEW DIPTERA OF THE GENUS  
PHTHIRIA.

BY CHARLES W. JOHNSON, BOSTON, MASS.

PHTHIRIA CYANOCEPS, sp. nov.

♂ Front, face, and occiput light bluish gray, ocellar triangle black; first and second joints of the antennae light yellow, third joint black, and about twice the length of the first and second joints combined; proboscis black, nearly double the length of the head. Thorax bluish gray (becoming blackish when dampened); scutellum light yellow. First and second segments of the abdomen black, with a sharply defined, narrow, posterior margin of yellow on the first segment; posterior margin of the second and all of the remaining segments, widely margined with grayish white, leaving a narrow, blackish, basal band, the segments are often so contrasted in dried specimens that the dark anterior portion is more or less concealed. Halteres white. Legs light yellow, tip of the metatarsi and all the other joints of the tarsi black. Wings whitish hyaline.

♀ Front and vertex broad, yellowish, occiput more prominent than in the male; ocelli, a small spot above the base of the antennae, and a short line on the occiput extending toward the cervix, on each side of a median depression, black, the first abdominal segment black, the others brownish, and all widely margined posteriorly with yellow. Length, 1.5 mm.

Four males and one female were collected by Mr. Owen Bryant and myself, on September 8th, by sweeping over the scanty vegetation on a white sandy tract near the beach at Cohasset, Mass. The eyes are a brilliant blue when living, changing to purple after death, and to dark brown when dry. It is the smallest of our described species. Types in the New England collection of the Boston society of natural history.

PHTHIRIA ALDRICHI, sp. nov.

♂ Face, ocellar triangle, and occiput grayish white, frontal triangle yellowish; face and occiput bearing conspicuous white pile; first and second joints of the antennae yellow, third black and about double the length of the other two; proboscis black and more than twice the length of the head. Thorax grayish white, sparsely covered with whitish hairs (in damp or greasy specimens the thorax is black); scutellum, postalar processes, and a spot between the base of the wing and halteres yellow. Abdominal segments blackish widely margined posteriorly with yellow, the black being most prominent on the second segment, genitalia and venter yellow. Legs variable in color, usually brownish black, with the base and tip of the femora and the base of the tibiae and metatarsi more or less yellowish. Halteres white, wings whitish hyaline.

♀ Front and face yellow, ocellar triangle and a short line on the occiput, on each side of the median depression, black. Humeri, lateral margins, upper portion of the pleurae, postalar

processes, and scutellum yellow. Abdomen yellowish, the dark basal portions being brown, and entirely wanting on the last four segments. Legs yellow, with only the tips of the tibiae and metatarsi and all the tarsi brown or blackish. Length, 4 mm.

Described from three males and one female received from Prof. J. M. Aldrich, who says:—“I collected it on a white sand bar along the Boise river at Caldwell, Idaho, June 24, 1901. It is very pale in life, and flies just like the drifting of the sand, close down and a short distance at a time. It is a fine instance of protective coloration. The male has beautiful purple eyes in life.”

*PHTHIRIA QUINQUENOTATA*, sp. nov.

♀ Front, face, and occiput grayish white, with short white pile; antennae and proboscis black. Thorax grayish white, sparsely covered with white hairs; dorsum with five large, velvety black spots arranged as follows:—one on each side just above the humeri, and three just back of the transverse suture; two slender black dorsal lines extend anteriorly from the central spot, and there is also a very small dot above the base of the wing; scutellum grayish white and quite thickly covered with white hairs, base narrowly margined with black; metanotum black, abdomen covered with a whitish pubescence through which the black ground color is visible; yellow posterior margin of the first segment broad, on the others very narrow. Legs black, tips of the femora and base of the tibiae and middle metatarsi yellow; on the middle and hind tibiae there is an obsolete brownish band near the base, with a broader yellowish band above. Wings whitish hyaline, veins yellow. Length, 4 mm.

One specimen from Grand Junction, Colorado, received from Prof. C. P. Gillette.